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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,479	08/15/2003	Xiaodong Duan	AVA-P005	3852
47389	7590	09/20/2006	EXAMINER	
PATTERSON & SHERIDAN, LLP			CURS, NATHAN M	
3040 POST OAK BLVD			ART UNIT	
SUITE 1500			PAPER NUMBER	
HOUSTON, TX 77095			2613	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/642,479	DUAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nathan Curs	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/03</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 9-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 11 September 2006.

### *Claim Rejections - 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. The claims are drawn to a method for computing and/or calculating values. Simply computing and/or calculating values, without using the values to produce a useful, concrete and tangible result, is not a practical application.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with

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which it is most nearly connected, to make and/or use the invention. The claimed method is drawn to computing and/or calculating values without using the values.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Shin et al.

("Shin") ("A novel optical signal-to-noise ratio monitoring technique for WDM networks", Shin et al.; Optical Fiber Communication Conference, 2000; Volume 2, 7-10 March 2000 Pages: 182-184).

Regarding claim 1, Shin discloses a method for distributed optical performance monitor in a network (page 182, section "I. Introduction"), comprising: selecting a frequency range based on network traffic protocol and transmission rate; sampling a plurality of points continuously at a frequency; computing the average power of the plurality of points; computing a Fast Fourier Transform to obtain a spectrum in frequency domain; computing a noise spectrum density from the spectrum and the frequency range; and computing an optical signal noise ratio (OSNR) from the noise spectrum density and the average sampled points (pages 182 and 183, section "II. Experiments").

Regarding claim 2, Shin discloses the method of Claim 2, further comprising computing an average optical power from a pre-saved calibration table (pages 182 and 183, section "II. Experiments").

Regarding claim 3, Shin discloses a method for distributed optical performance monitor in a network (page 182, section "I. Introduction"), comprising: calculating a noise spectrum density from a spectrum and a frequency range and computing an optical signal noise ratio (OSNR) from the noise spectrum density and a predetermined calibration data (pages 182 and 183, section "II. Experiments").

Regarding claim 4, Shin discloses the method of Claim 3, prior to the calculating step, further comprising computing a Fast Fourier Transform and obtaining a spectrum in frequency domain (pages 182 and 183, section "II. Experiments").

Regarding claim 5, Shin discloses the method of Claim 4, prior to the computing of the spectrum frequency domain, further comprising computing an average power of the plurality of points (pages 182 and 183, section "II. Experiments").

Regarding claim 6, Shin discloses the method of Claim 5, prior to the computing step of the average power of the plurality of points, further comprising sampling a plurality of points continuously at a frequency (pages 182 and 183, section "II. Experiments").

Regarding claim 7, Shin discloses the method of Claim 6, prior to the sampling step, further comprising selecting a frequency range based on network traffic protocol and transmission rate (pages 182 and 183, section "II. Experiments").

Regarding claim 8, Shin discloses the method of Claim 3, wherein the computing of the OSNR is based on the following equation:  $OSNR = (P_{sig} * B_o) / (P_{ase} * R)$  where the symbol "P<sub>sig</sub>" denotes a signal power, the symbol "P<sub>ase</sub>" denotes an Amplified Spontaneous Emission (ASE) power, the symbol "B<sub>o</sub>" denotes a filter band width, and the symbol "R" denotes a wavelength resolution (page 183).


### ***Conclusion***

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8. Any inquiry concerning this communication from the examiner should be directed to N. Curs whose telephone number is (571) 272-3028. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached at (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (800) 786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**JASON CHAN**  
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